

1 WHAT IS CLAIMED IS:

2 1. A blowby gas circulation system for an engine having
3 a crankcase and an intake system, comprising:

4 an oil tank for supplying engine oil reserved therein
5 to said crankcase and for introducing a gas-liquid mixture
6 generated in said crankcase and for separating said gas-liquid
7 mixture into a processed gas-liquid mixture and engine oil; and
8 a breather chamber for introducing said processed
9 gas-liquid mixture and for separating said processed gas-liquid
10 mixture into blowby gas and engine oil and for sending said blowby
11 gas to said intake system and for returning said engine oil to
12 said crankcase.

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14 2. A blowby gas circulation system for an engine having
15 a crankcase and an intake system, comprising:

16 an oil tank for supplying engine oil reserved therein
17 to said crankcase and for introducing a first gas-liquid mixture
18 generated in said crankcase and for separating said first
19 gas-liquid mixture into a second gas-liquid mixture and engine
20 oil;

21 a first breather chamber for introducing said second
22 gas-liquid mixture and for separating said second gas-liquid
23 mixture into a third gas-liquid mixture and engine oil and for
24 returning said engine oil to said crankcase; and

25 a second breather chamber for introducing said third

1 gas-liquid mixture and for separating said third gas-liquid
2 mixture into blowby gas and engine oil and for sending said blowby
3 gas to said intake system and for returning said engine oil to
4 said crankcase.

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6 3. The blowby gas circulation system according to claim
7 2, wherein said crankcase is formed by integrally connecting a
8 first crankcase with a second crankcase and said first breather
9 chamber is formed by superimposing a first pocket integrally
10 provided with a clutch cover on a second pocket integrally provided
11 with said second crankcase when said clutch cover is connected
12 with said second crankcase and said second breather chamber is
13 formed by superimposing said second pocket on a third pocket
14 integrally provided with said first crankcase when said second
15 crankcase is connected with said first crankcase.

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17 4. The blowby gas circulation system according to claim
18 2, further comprising:

19 a first oil pump for feeding engine oil reserved in
20 said oil tank to said crankcase; and

21 a second oil pump for feeding said first gas-liquid
22 mixture from said crankcase to said oil tank.

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24 5. The blowby gas circulation system according to claim
25 4, wherein said second oil pump has a larger pumping power than

1 said first oil pump does so as to produce a vacuum pressure in
2 said crankcase.

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4 6. A method of circulating blowby gas for an engine having
5 a crankcase, an intake system and an oil tank, comprising the
6 steps of:

7 supplying engine oil reserved in said oil tank to said
8 crankcase and for introducing a gas-liquid mixture generated in
9 said crankcase and for separating said gas-liquid mixture into
10 a processed gas-liquid mixture and engine oil; and

11 introducing said processed gas-liquid mixture to a
12 breather chamber and separating said processed gas-liquid
13 mixture into blowby gas and engine oil in said breather chamber
14 and sending said blowby gas to said intake system and returning
15 said engine oil to said crankcase.

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17 7. A method of circulating blowby gas for an engine having
18 a crankcase, an intake system and an oil tank, comprising the
19 steps of:

20 supplying engine oil reserved in said oil tank to said
21 crankcase and introducing a first gas-liquid mixture generated
22 in said crankcase and separating said first gas-liquid mixture
23 into a second gas-liquid mixture and engine oil and returning
24 said engine oil to said crankcase;

25 introducing said second gas-liquid mixture to a first

1 breather chamber and separating said second gas-liquid mixture
2 into a third gas-liquid mixture and engine oil in said first
3 breather chamber and returning said engine oil to said crankcase;
4 and

5 introducing said third gas-liquid mixture to a second
6 breather chamber and separating said third gas-liquid mixture
7 into blowby gas and engine oil in said second breather chamber
8 and sending blowby gas to said intake system and returning said
9 engine oil to said crankcase.

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